

Inflammation and Chronic Fatigue: Twin Hallmarks of Autoimmune Disease

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Functional (Integrative) Medicine

- Blends the best of traditional medical practice with alternative proven methods
- Looks for benign, non-toxic answers
 - Try lifestyle improvements first before drugs
 - Surgery is a last resort
- Practiced by enlightened medical doctors
 - Joseph Mercola, D.O.
 - Andrew Weil, M.D.
 - Gabe Mirkin, M.D.
 - Thomas Levy, M.D., J.D.
 - Mehmet Oz, M.D.

“Rogue” Doctors

Braving the scorn of the medical establishment, they brought us important breakthroughs:

- Hugh Riordan (intravenous vitamin C protocol)
- Robert Cathcart (vitamin C therapies)
- Archie Kalokerinos (vaccines dangers; vitamin C treatment for toxins)
- Frederick Klenner (therapeutic vitamin C)
- Thomas M. Brown (tetracyclines for rheumatic disease)
- Robert Atkins (benefits of low carb diet)
- Irwin Stone (*Vitamin C the Healing Factor*)

More at RA-Infection-Connection.com/RogueDocs.htm

From Analyst to Health Researcher

- 1993 injured both ankles in a fall down stairs
- Diagnosed with Rheumatoid Arthritis (RA)
- Told “no cure, unknown cause, eventually crippling”
- Hit the books, Internet, university libraries, experts
- Earned a PhD in Health Science in 1997
- Dissertation based on Dr. Brown’s 1949 work
 - following his protocol, I am in remission from RA
 - tetracyclines are specific to the culprit: mycoplasma
- 2002 book describes how infection works, how immune system works, non-toxic ways to beat RA
- 2012 book includes more autoimmune diseases

“Autoimmune Diseases” (Partial List)

Aseptic Meningitis

Ankylosing Spondylitis

Autism Spectrum
Disorders (ASD)

Addison's Disease

Hepatitis

Cardiomyopathy

Interstitial cystitis

Chronic Fatigue Syndrome
(CFS) [aka Chronic Fatigue
Immune Dysfunction
Syndrome (CFIDS)]

Chronic Obstructive Pulmonary
Disease (COPD)

Crohn's Disease

Dermatitis herpetiformis

Discoid Lupus

Endometriosis

Graves' Disease

Hashimoto's Thyroiditis

Fibromyalgia

Diabetes (Type 1)

Celiac Sprue-Dermatitis (gluten-
sensitive enteropathy)

“Autoimmune Diseases” (continued)

Juvenile Rheumatoid
Arthritis (JRA)

Lupus (Systemic Lupus
Erythematosus or SLE)

Lyme Disease, chronic

Meniere's Disease

Multiple Sclerosis

Myasthenia Gravis

Peripheral Neuropathy

Pernicious Anemia

Polymyalgia Rheumatica

Psoriasis (including
Psoriatic Arthritis)

Raynaud's Phenomenon

Reflex Sympathetic
Dystrophy (RSD)

Rheumatic Fever

Rheumatoid Arthritis

Sarcoidosis

Scleroderma

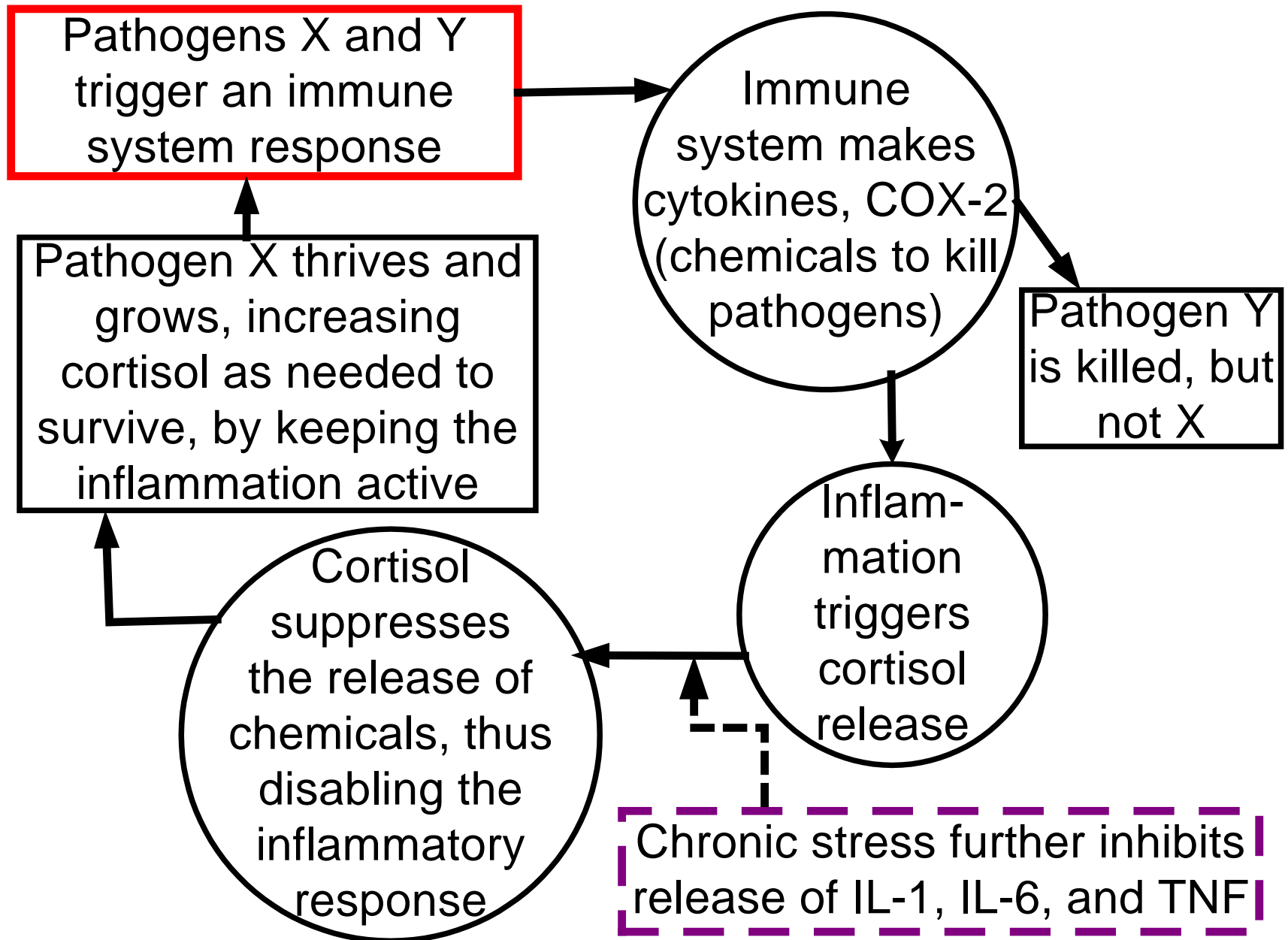
Sjögren's Syndrome

Ulcerative Colitis

The Inflammation Process

- The body is in cyclic build-up/tear-down mode
- Inflammation is usually beneficial
 - signals immune system cells to go to the injury site, kill invaders, dispose of debris, repair tissue
- Unabated immune system activity leads to chronic fatigue, destruction of tissue and cartilage
- Natural chemicals, hormones, and enzymes figure in the infection-fighting process
- Some palliative drugs try to inhibit over-production of chemicals but do not remove the root cause
- Some pathogens thrive on the stress hormone cortisol and use the inflammation response to get it

The Pathogen-Cortisol Loop



Mycoplasma as “Pathogen X”

- Mycoplasma thought to be harmless microorganisms
 - can become compromised *in vivo* parasites
 - abnormal activity prompts an allergic reaction that is mistaken for an autoimmune disorder
 - PCR analysis of synovial fluid can find pathogens
- Live vaccines can be contaminated with mycoplasma
- Cloaking behavior can fool the immune system
 - cell shape modification
 - can infiltrate T-cells (immune cell precursors that later form mature cells with specialty functions)
 - mimic behavior of normal cells
 - hide in biofilm colonies

Cloaking Behavior of Microbes

- When microbes hide in biofilm colonies
 - lab culture tests are misleading or give false negatives
 - antibiotics can't penetrate
- Biofilms harbor toxin generators (gut endotoxin release)
- Released toxins intensify inflammation elsewhere
 - e.g., ear infections, colic made worse [Kalokerinos]
- Need to find ways to tear down biofilm colonies
 - enzymes can help (e.g., serrapeptase, nattokinase)
 - RA-Infection-Connection.com/BiofilmsTutorial.htm

The Autoimmune Reaction

- Mere fragments of mycoplasma can provoke an antigenic (allergic) reaction producing antibodies
- The body learns to react to mycoplasmas
 - similar to poison ivy reaction
 - explains why vaccines have not been successful
- Mycoplasma grows best when the thyroid is minimally active (in “hypo” state)
- Food allergies, *Candida* intensify RA symptoms
- Patients with other diagnoses having RA symptoms test positive for mycoplasma, other bacteria, and often viruses, fungal infections

The Common Denominator: Mycoplasma

Percentage of chronic illness patients where mycoplasma is found:

- Chronic Fatigue Syndrome: 50%
- Fibromyalgia: 60%
- Lyme Disease: 65%
- Multiple Sclerosis: 50-60%
- Autism Spectrum Disorders (ASD): 60-70%
- Rheumatoid Arthritis (RA): 45%
- Lou Gherig's Disease (ALS): 85-90%
- Gulf War Illness (GWI): 40%
- Other "autoimmune" conditions: about 30%

Mycoplasmas are 30% of the Problem

Other contributors to the chronic/persistent pathogenic polymicrobial problem

- Viruses: Herpes 1&2, CMV, EBV, shingles and chicken pox, and other cell invaders, especially nerve cells
- Vector borne: ticks (Lyme), fleas (typhus) and mosquitoes (Lyme, West Nile), rats (Hantavirus)
- Respiratory: *Chlamydia pneumonia* (Cpn), RSV, pneumococcus and streptococcus forms
- Gut: measles from vaccines, one factor in ASD, live polio from vaccines (Post Polio Syndrome), Giardia
- Yeast infections: in gut epithelia (leaky gut, IBS) and systemic (Candida, intracellular forms)

Cycles in Autoimmune Disorders

- Progression of mycoplasma infection is cyclical
 - triggers are trauma, barometric pressure change, overloaded immune system, co-infections, conditions like diabetes and nutritional deficiencies
- Blood carries antibodies, enzymes, antigens throughout the body
- Mycoplasmas as antigens release toxins intermittently
- RA flare-ups show the ebb and flow of symptoms consistent with infection activity

RA Triggers and Countermeasures

- Two major environmental factors cause flare-ups
 - sudden drop in barometric pressure
 - high humidity in conjunction with this drop
- Physical trauma to joints and tendons
- Emotional trauma stresses the immune system
- Take steps to improve blood oxygenation and toxin/fluid export
 - aerobic exercise, HBOT treatments, DMSO
 - supplements (CoQ₁₀, chlorella, antioxidants)
- Copper and zinc needed for desirable COX-2 enzyme action

Trapped Toxins

- Immune system puts a low priority on clearing bacteria from soft tissues, biofilms, plaques
- Toxins released by antigen-versus-antibody conflict are trapped in bursa pockets around joints
 - fluid mass or scar tissue puts pressure on a joint capsule with inflamed soft tissue
 - gravity traps toxins in lower extremity joints
 - excess weight, ill-fitting shoes worsen pressure
 - poor circulation, viscous lymph system, and dehydration prevent elimination of toxins

Slow-Growing Infections Over a Lifetime (1)

Chlamydia/Chlamydophila is responsible for many bacterial infections

- Pneumonia, encephalomyelitis, mastitis, polyarthritis, urogenital tract infection, hepatitis

Chlamydophila pneumoniae (Cpn)

- Airborne pathogen, infects respiratory tract
- Causes inflammation, fatigue, toxin overload
- Plays a role in atherosclerosis, stroke, Alzheimer's, COPD, asthma, MS, interstitial cystitis, fibromyalgia, and many more
- IgG, IgA and IgM blood tests are useful
- Tests are not usually given unless requested

Slow-Growing Infections Over a Lifetime (2)

- Human Herpes Virus make us vulnerable to *Streptococcus pyogenes*, which leads to RA, strep throat, scarlet fever, impetigo, rheumatic fever
 - HHV-6 is a major factor in AIDS, hepatitis, Alzheimer's, may be linked to Multiple Sclerosis
- *Streptococcus pneumoniae* linked to *Otitis media*, bacterial pneumonia, bacteremia peritonitis, sinusitis, sepsis, reactive arthritis
- *Varicella zoster* virus (childhood chicken pox) leads to *Herpes zoster* (adult shingles)
- Herpes Simplex Virus Type 1 (HSV1)
 - factor in Alzheimer's, arterial plaque formation

Specific Tests For Microbial Infection

Conventional tests:

Allergy (ELISA: IgG and IgE blood tests)	Neutrophil
Erythrocyte Sedimentation Rate (ESR or “Sed rate”)	Antinuclear Antibody
51Chromium Release Assay	Thyroid
Joint Scan (radioisotope)	Interferons
C-Reactive Protein (CRP)	Eosinophil
Rheumatoid factor (R-factor)	Tetracycline
Polymerase Chain Reaction (PCR)	Specific tests
Anti-cyclic Citrullinated Peptide (CCP)	on biochips
Genetic Marker (HLA-B27, -DR4, -DR1)	

Specific Tests For Microbial Infection

Unconventional tests:

Darkfield Microscopy

Phase-Contrast Microscopy

Applied Kinesiology

Visual Contrast Sensitivity (VCS)

Hair Analysis

RA Treatment

- Tetracyclines are among the few antibiotics effective against nearly all mycoplasmas
- Doxycycline retards cartilage damage in both RA and Osteoarthritis
- Antibiotics should always be counter-balanced with probiotics to replenish “good” gut bacteria
- RA test results often not correctly interpreted
 - tests are designed for short term response to 10-14 days of full attack)
- Dramatic case histories document recoveries
 - RA-Infection-Connection.com/CaseHistories.htm

Jarisch-Herxheimer Reaction

- This reaction shows infection is present
 - Tetracycline antibiotics suppress mycoplasma's defensive barrier
 - Natural herbal antibiotics can prompt a reaction
- Proper diet can mitigate the reaction
 - Maintain calcium/magnesium, folic acid, copper, zinc levels
 - Drink plenty of water to expel toxins
- Large pulsed doses of Vitamins C and B₆ can counter histamine over-production
- Cortisone or antihistamines may be used with tetracyclines

Dealing With Pathogen Overload

- Latent infections are souvenirs of childhood illness
 - E.g., chronic pneumonia/bronchitis lead to RA
- Goal is to train the body to defend itself naturally
- Simultaneous approach
 - reduce the colonies of pathogens
 - long term, low dose antibiotics and/or antivirals and/or antifungals and/or vitamin C therapy
 - strengthen the immune system with proper nutrition and exercise
 - fix other dysfunctional conditions (endocrine, circulatory, digestive, excretory, etc)

Neutralizing Harmful Toxins and Enzymes

- When the pathogen is in doubt, it may be more effective to target the irritant first
 - anti-inflammatories, antihistamines, enzymes
 - vitamin C is a universal toxin antidote
 - increase water intake
 - stimulate circulation with herbs, massage, exercise, topical salves, DMSO to flush toxins
 - allergen testing (IgG and IgE blood tests)
- Genetic markers may predispose individuals to contract arthritis after particular infections
 - e.g., Salmonella toxin has HLA-B27, genetic marker associated with RA

Some RA Success Stories

- *Arthritis & Rheumatology* 1999;42:1691-1695
 - 50% improvement for 65% of subjects using minocycline
- *Annals of Internal Medicine* 1995;122:2, 81-89
 - MIRA study: “Minocycline safe and effective for RA”
- Drs. A. Robert Franco, Gabe Mirkin, Joseph Mercola
 - 30-40% probability of complete remission
 - 70-80% probability of significant reduction of symptoms
 - similar statistics from The Road Back Foundation and The Arthritis Trust

The Bad News

- Most rheumatologists still refuse to accept persistent polymicrobial infection as the root cause of “autoimmune diseases” like RA
 - selectively ignore substantial scientific evidence
 - infection as root cause considered “controversial”
 - keep prescribing immunosuppressive drugs
- Dr. Gabe Mirkin: “These dangerously toxic drugs shorten the patient’s life by an estimated ten years and increase cancer risk six-fold. The drugs are highly expensive, and merely dull pain rather than target the infection.”

Typical drugs prescribed for RA

- NSAIDs (nonsteroidal, anti-inflammatory drugs)
 - Ibuprofen (Advil, Motrin), naproxen (Aleve), acetaminophen (Tylenol), Celebrex, Voltaren
- DMARDs (disease-modifying antirheumatic drugs)
 - Arava, Azulfidine, Dynacin
- TNF-alpha inhibitors (of the cytokine inflammation cascade)
 - Enbrel, Remicade, Simponi, Cimzia, Humira
- Toxic side effects
 - Vioxx taken off market in 2004, Bextra in 2005

Taking a Benign Approach

- Vitamin C (pulsed megadoses over the day)
 - dosage given by Dr. Cathcart at orthomed.com/titrate.htm
- Propolis, turmeric (cumin), yucca, ginger
- Omit polyunsaturated vegetable oils, trans-fatty acids, margarine, hydrogenated oils, canola oil, soy
- Use healthy fats and oils (coconut, olive, butter)
- Add more omega-3 fatty acids like fish oil, flaxseed (2-3 Tbs added to food)
- Avoid red meats, processed foods, high carb foods
- Pau d'arco, oregano, garlic, vinegar good for fungal infections

One Size Does Not Fit All

- For most humans, vitamin D is essential to immune health
- Many people have seasonal low levels of vitamin D that impair their health in winter
- Some bacteria, e.g. Sarcoidosis, make too much vitamin D leading to light-sensitivity toxicity
 - the result is vitamin D poisoning from sun exposure
- Professor Trevor Marshall devised a protocol using ARB blockers to control the Herxheimer reaction
 - See his nonprofit website <http://mpkb.org/>

Benefits of Vitamin C

- Anti-oxidant plus anti-toxin, anti-bacterial, anti-viral, anti-histamine, anti-enzyme
- Stimulates function of white blood cells (immune system's B- and T-cells)
 - suppresses some intra-cellular microbial parasites
- Greatly accelerates healing: cuts, wounds, burns (including sunburn), post-surgery, fractures, bruises
- Anti-stroke: clears plaques, makes arteries resilient
- Protects against bacterial and viral diseases: colds, flu, West Nile virus, cancer, pneumonia, diabetes, Alzheimer's, Parkinson's, MS, Fibromyalgia, more

Vitamin C Deficiency

- Ascorbate deficiency can be serious
 - makes one susceptible to infection, chronic illness, especially pre-natal and nursing infants
 - vaccines given in a depleted state can result in death
- RDA-approved multi-vitamins contain just enough to prevent scurvy (50-90 milligrams)
- Fortunately, Vitamin C is available and cheap
 - strengthens the immune system
 - boosts drugs' action plus reduces toxic side effects
 - any excess is used by the body to restore depleted tissues and stabilize collagen

The Need For Vitamin C Varies

- Amount depends on age, toxin load, infection level, allergic reaction, disease/microbe types
 - vitamin C is consumed rapidly in detoxifying reactions, needs pulsed dose, frequent replenishment
 - range is 50 milligrams/day (anti-scurvy) to over 250 grams/day (acute toxemia)
- Liposomal form (L-AA) equal to high IV dose
 - L-AA is phospholipid nano-encapsulated AA in a non-GMO lecithin sphere
 - 1 gram L-AA equivalent to 7 grams IV ascorbic acid
 - L-AA developed to treat Chronic Fatigue Syndrome
 - available online (many sources; mercola.com is best)

High Dose Ascorbate Saves Lives

Vitamin C used in Emergency Rooms could mean an estimated 50% fewer deaths

- Recovery within 20 minutes of shot
- Ascorbate acts as a powerful antidote
 - prevents Sudden Infant Death Syndrome (SIDS)
 - prevents Shaken Baby Syndrome
 - carbon monoxide poisoning
 - smoke inhalation
 - toxic shock syndrome
 - neutralizes snake, insect, jellyfish bites/stings
 - reverses severe allergic reactions (e.g., peanuts, shellfish, mushrooms)

Effective Alternatives for Pain Relief

- Acupuncture, acupressure, massage, chiropractic, stretching, tai chi, Pilates, yoga, aerobic exercise
- Diet and Lifestyle adjustments (reduce sugar and carbohydrates)
- DMSO (topical), MSM (oral)
- Ultraviolet Light Treatment (Photopheresis)
- Mind/body methods can change pain perception
- Homeopathic Remedies (partial list)
 - Colchicum 6c
 - Bryonia 6c
 - Rhus toxicodendron 6c
 - Arnica montana 30x
- Vitamin C
- Enzyme therapy

Types of Enzymes

- Digestive enzymes
 - Bromelain and Papain attack parasites' protective coatings in the digestive tract
 - combining bromelain with pulsed antibiotic therapy (ABT) is more effective than ABT alone
- Systemic (also called Metabolic) enzymes
 - have anti-inflammatory properties, used to treat Osteoarthritis, Rheumatoid Arthritis, Multiple Sclerosis, and other chronic disorders
- Food enzymes
 - most abundant in raw fruits and vegetables
 - juicing leads to maximum benefit

Hyperbaric Oxygen Therapy (HBOT)

Useful in treating:

AIDS

stroke

arthritis (many forms)

severe burns

autism spectrum disorders

cerebral palsy

mononucleosis

Chronic Fatigue Syndrome

chronic viral infections

traumatic brain injury

“flesh eating” bacteria

MRSA infection

Multiple Sclerosis

migraine headaches

non-healing wounds from

Type 2 diabetes

osteomyelitis

anaerobic bacterial

infections

RSD (Reflex Sympathetic
Dystrophy)

Be A Wellness Detective

- Observe your lifestyle (habits, posture, shoes)
 - When and where does pain happen?
 - How many hours per day are spent sitting?
 - How much time is spent moving?
- Check your surroundings for allergens
 - Home/office (chemicals, dust, mold, mildew, pets)
 - Garden (plants, pesticides)
- Read labels (avoid hidden sugars)
 - Pathogens thrive in a sugary environment

Internet Resources

- RA-Infection-Connection.com [nonprofit, free health articles, ongoing research, vitamin C info]
- ArthroPatient.org [biofilms]
- RoadBack.org [nonprofit RA support]
- ArthritisTrust.org [nonprofit RA support]
- Mercola.com [interactive medical doctor site]
- DrMirkin.com [interactive medical doctor site]
- DoctorYourself.com [nonprofit, health info]
- ImmunosciencesLab.com [testing lab in California]
- Immed.org [autoimmune research, notably autism, RA]
- LymeInfo.net [Lyme support group]
- CpnHelp.org [Cpn support group]
- Orthomed.com [Dr. Cathcart, M.D., vitamin C expert]
- NutritionData.self.com [food and diet research tools]